



Examiners' Report Lead Examiner Feedback

June 2024

Pearson BTEC Nationals
In Information Technology (31761H)
Unit 2: Creating systems to manage information

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What is a grade boundary?

A grade boundary is where we set the level of achievement required to obtain a certain grade for the externally assessed unit. We set grade boundaries for each grade, at Distinction, Merit and Pass.

Setting grade boundaries

When we set grade boundaries, we look at the performance of every learner who took the external assessment. When we can see the full picture of performance, our experts are then able to decide where best to place the grade boundaries – this means that they decide what the lowest possible mark is for a particular grade.

When our experts set the grade boundaries, they make sure that learners receive grades which reflect their ability. Awarding grade boundaries is conducted to ensure learners achieve the grade they deserve to achieve, irrespective of variation in the external assessment.

Variations in external assessments

Each external assessment we set asks different questions and may assess different parts of the unit content outlined in the specification. It would be unfair to learners if we set the same grade boundaries for each assessment, because then it would not take accessibility into account.

Grade boundaries for this, and all other papers, are on the website via this link:

<http://qualifications.pearson.com/en/support/support-topics/results-certification/grade-boundaries.html>

31761H: Creating systems to manage information

Grade	Unclassified	Level X			
		N/L1P	P	M	D
Boundary Mark	0				

Introduction

Please note there is a paper-based solution, marking guidance and two marked scripts available for use with this examiner's report.

The resources are available [here](#) and will be referred to throughout this report.

This unit is a mandatory synoptic unit, which requires learners to complete two set tasks to design, create, test, and evaluate a relational database system that manages information.

This examination consists of:

- part A – normalisation (considering the scenario and the database extract), implementing the relational database structure, building queries and a report, testing, and evaluating the relational database structure
- part B – the interface i.e., two forms, testing, and evaluating the interface.

There are substantial numbers of centres/learners who do not follow the guidelines in terms of administration i.e., there should be **11 files** only: 9 pdf files and two database files. These should be named as specified. A number of candidates submit a huge amount of files, which makes it very hard to download and for the examiner to know what to mark. The databases are for administration purposes only and **do not** get marked.

Centres **must** use the examination templates provided with each examination paper. **Despite this being reiterated in every Lead Examiner report there are still several learners/centres failing to do this.** Some use old ones, whilst others do not use them at all. The templates are designed to give learners the best opportunity to present **all** the evidence required. Learners/centres who do not use the templates tend to miss out important evidence. The templates are provided as .rtf files. Centres may choose to use Word versions of these templates. Learners must ensure that they save the templates as pdf files – many did not this series. Only pdfs can be viewed on the learner work platform. Examiners cannot open any other file type.

In Part A, learners **must not** create any new attributes, they should use **all, and only**, the attributes given in the data extract. Please note using all and only the attributes given does not mean that learners cannot rename attributes. This is perfectly acceptable. In Part B, learners should not change the structure of the database at all. They should build their interface around the structure exactly as it is given.

Part A Activity 1 – Database relationship screenprint

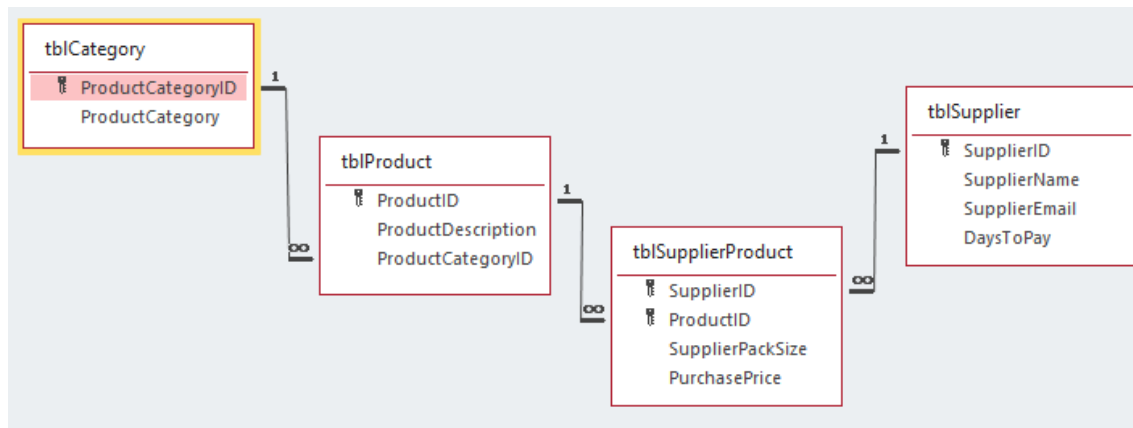
This task is designed to test the learners' knowledge and skills in terms of database modelling via creating a database skeleton structure that reflects third normal form. They should use **all, and only**, the attributes given in the data extract.

Marking Guidance	3
Script A	3
Script B	3

The evidence expected is the database relationships screenprint taken from the database and pasted into a document then saved as a pdf file.

The screenprint should include:

- each table in their solution
- all the fields in each table
- primary keys that have been assigned
- foreign keys (where appropriate)
- relationships between tables
- the enforcement of referential integrity



It was clear that many learners took the scenario, the data extract and the requirements of Activity 2 fully into account when designing their solution. The scenario pointed them in the direction of products, suppliers and product categories. It also clearly stated that a product may be supplied by more than one supplier and that the pack size and purchase price for a product may be different depending on the supplier. That should have led to the SupplierProduct link table.

The extract included the minimum number of records to show the relationships between each of the entities, whilst minimising data input. The fourth requirement of activity 2 described one of the foreign keys and the table it belonged to i.e., *'a record for a new product will not save if the category ID is invalid'*, clearly showing the product table had Category ID as a foreign key. There was enough in the scenario and database extract for the learners to know which other foreign keys were needed. Between the scenario, extract and activity 2 requirements the database structure was fully covered.

There are still a considerable number of learners who put forward a three table solution and a few who put forward a five table solution. Only solutions that fully consider what was given in the scenario and extract gained full marks.

There is quite a large number of learners who do not include a screenprint of the relationship design for Activity 1. Many submit the database itself and name it Activity 1 – this is not taken as evidence. Marks cannot be awarded for Activity 1 without a screenprint of the relationships.

Part A Activity 2 – Table structures and validation

Learners **must** use the template provided in each examination series for this task. Examiners mark the evidence against the learners' own entity relationship screenprint (Activity 1) to ensure learners are not double penalised for any errors occurring in Activity 1. Where learners have not included an Activity 1, their structure is marked against our solution. It is designed to test their ability to build the database tables following standard naming conventions including the effective use of field names, relevant data types, assignment of primary and foreign keys and a range of suitable validation.

Marking Guidance	Pages 4 to 6
Script A	Pages 4 to 7
Script B	Pages 4 to 6

Traits 1, 2 and 3

tblProduct	
Field Name	Data Type
ProductID	Number
ProductDescription	Short Text
ProductCategoryID	Number

tblCategory	
Field Name	Data Type
ProductCategoryID	Number
ProductCategory	Short Text

tblSupplierProduct	
Field Name	Data Type
SupplierID	Number
ProductID	Number
SupplierPackSize	Number
PurchasePrice	Currency

tblSupplier	
Field Name	Data Type
SupplierID	Number
SupplierName	Short Text
SupplierEmail	Short Text
DaysToPay	Number

The evidence expected is one screen print per table as shown above. These screenprints cover the first three traits. Many learners **still do not** include these screenprints and go straight to screen prints of validation. Rarely is validation required in all of the tables so at least one table is usually missing, sometimes more. Evidence for traits 1 to 3 can only be classed as limited without these screenprints.

Trait 1 *Naming conventions*

Most learners did use standard naming conventions consistently i.e. table names were consistent, primary key names were consistent, other field names were consistent. However, a number of learners still crop the screenprints so that the names of the tables cannot be seen.

Trait 2 *Keys*

Most learners did ensure that the structure given matched the ERD from Activity 1. It is worthwhile advising learners that if they amend the structure then they need to ensure Activity 1 and Activity 2 match. Where Activity 1 had not been included the keys are judged against our example solution.

Trait 3 *Data types*

Many learners did use the correct data types for all fields:

- Purchase Price: Currency
- Supplier Pack Size: Number
- Days to Pay: Number
- Primary keys, any suitable data type
- foreign keys match their primary (e.g., number -> AutoNumber)
- Everything else text

However, there are still a number of learners who produce the screenprints of their tables too early i.e. before they have set the data types so that all are still text fields.

Trait 4 Validation

Learners need to provide one screenprint of each type of validation listed. Learners need to **think very carefully** about the screenprints they include. The screenprints must show validation that is appropriate to the scenario and the requirements given in Activities 2 and 4.

In this paper the evidence required was **one** each of:

- presence check
- length check
- value lookup or range check
- table lookup
- format check

Where more than one example of each had been included, the first example was taken as the evidence to be assessed.

Learners should fully validate their database tables even though only one screenprint is required. It may be that Activity 4 requires the testing of something not specified in Activity 2 e.g., testing of more than one foreign key.

It is also worth noting that the minimum requirements for appropriate evidence of validation applied to a foreign key field is that the table name and field name can be clearly seen. Without both the examiner will class the evidence as an attempt rather than accurate. For all other fields, the field name must be seen to be considered accurate.

Presence Check

tblSupplier	
Field Name	Data Type
SupplierID	Number
SupplierName	Short Text
SupplierEmail	Short Text
DaysToPay	Number

General	
Field Size	25
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	Is Not Null and Like "*?@?*.?*"
Validation Text	Please enter a valid email address
Required	No

The evidence expected was one screenprint, in design view, showing the field name, presence check and suitable validation text. Learners should have noticed that there were two choices for a presence check in activity 2. They were told *"a record for a new supplier will not save if the supplier name is not present"* and *"a record for a new supplier will not save if the supplier email address is not present"*. Whilst candidates needed to validate both, they only needed to include a screenprint of one of them.

It should be noted that:

- presence checks applied to primary keys are not appropriate
- setting 'Required' to 'yes' is not appropriate
- showing the results of a presence check in datasheet view, rather than the actual presence check in design view is not appropriate
- a presence check on a field other than the 'steer' is classed as a demonstration of the skill required but not entirely correct in terms of the scenario/testing requirements

Any of the above would prevent access to the highest mark band as would not ensuring the presence check had a suitable customised error message that would appear if the field were left blank.

Length Check

tblSupplier	
Field Name	Data Type
SupplierID	Number
SupplierName	Short Text
SupplierEmail	Short Text
DaysToPay	Number

General	Lookup
Field Size	25
Format	

Evidence of a suitable length check on one **text** field was expected i.e., changing the field size of a text field or using a validation rule to check that the length was appropriate. Note if the check is not applied to a text field, then it is not mark worthy.

Range Check/Value Lookup

tblSupplier	
Field Name	Data Type
SupplierID	Number
SupplierName	Short Text
SupplierEmail	Short Text
DaysToPay	Number

General	Lookup
Field Size	Long Integer
Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	Between 14 And 30
Validation Text	Must be between 14 and 30

Evidence of an appropriate range check or value lookup on the Days to Pay field was expected. The scenario, Activity 2 requirements and testing requirements should have guided them to realising min (14) and max (30) values were required.

Table Lookup

tblProduct	
Field Name	Data Type
ProductID	Number
ProductDescription	Short Text
ProductCategoryID	Number

General Lookup	
Display Control	Combo Box
Row Source Type	Table/Query
Row Source	SELECT [tblCategory].[productCategoryID], [tblCategory].[ProductCategory] FROM tblCategory;
Bound Column	1
Column Count	2
Column Heads	No
Column Widths	2.778cm;2.487cm
List Rows	16
List Width	5.265cm
Limit To List	Yes

The evidence required was one screenprint showing a table lookup, in design view, applied to any of the foreign keys. **NOTE**, there are still many learners who do not ensure 'Limit to List' is set to 'Yes' on

their table lookup or they have cropped the screenprint so it cannot be seen. This affects the marks that can be awarded. There are also a number of learners who still evidence this as a value lookup – it must be on a foreign key and **look up** into the primary table.

Format Check

tblSupplier	
Field Name	Data Type
SupplierID	Number
SupplierName	Short Text
SupplierEmail	Short Text
DaysToPay	Number

General	
Field Size	25
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	Is Not Null And Like "*?@?*.?*"
Validation Text	Please enter a valid email address
Required	No

The Supplier Email Address was the format check expected. For the purpose of Level 3 skills a valid email address would match all of the emails shown in the extract. Candidates could think beyond this, but it was not necessary.

Whilst format checks applied to other text fields were markworthy if suitable, they were not considered fully appropriate.

Every Lead Examiner report points out that format checks applied to number data types or date data types etc. are not acceptable, so it is surprising the number of learners who still do this.

Part A Activity 3 – Queries and report

This task is designed to test the learners' ability to build the queries and report required to meet the specification requirements. Learners **must** use the template provided in each examination.

This activity is best suited to being assessed using a points-based approach to define the difference between 'limited', 'some', 'most' and 'all'. This is explained in the marking guidance.

Marking Guidance	Pages 7 to 10
Example Solution	Pages 7 to 10
Script A	Pages 8 to 13
Script B	Pages 7 to 10

The focus of each trait is detailed below.

Trait 1 The focus of assessment is on learners being able to recognise the tables and fields that will be required to produce the required results and adding these to their query grids/report.

Whether the learners go on to produce the required results is of no consequence in this trait. Therefore, it is worth encouraging learners who do not think they can complete some of the more challenging aspects within query b and the report to at least ensure they include evidence of the tables and fields that would be used.

Trait 2 The focus of assessment is on learners being able to use criteria and calculations correctly (including sorting). In terms of query a, it was expected that most candidates would be able to apply a suppliers of plastic champagne flutes with less than 1000 in a pack and at least 25 days to pay.

In terms of query b, it was then expected that pass level learners would be able to find cups. It was expected that merit level learners would be able to complete some aspects of the calculation for the selling price and that distinction level would be able to complete the query correctly.

In terms of the report it was expected that most learners would be able to complete it and produce the count of the

total products (even if it was not in the correct place). Those who ensure they read the question carefully would ensure they did not filter the report to show only large pack sizes i.e. the instructions were for each supplier calculate the total number of product and the total number of large pack sizes. Potentially two different outcomes.

Trait 3 The focus of assessment is on learners being able to present the results of their queries and report sensibly so that the output matches the requirements and would make it easy for a user to read and understand the data.

This includes being able to:

- only show the fields requested
- ensure data/labels are not truncated
- use suitable field names/labels for generated fields
- include a suitable title on the report
- ensure the report fits on one page and uses the width of the page/size of fields/labels etc. wisely
- use a group header/footer to show items only once when appropriate.

It is worth noting that assessing truncation/layout can only be determined from datasheet view of the queries and the pdf version of the database report. A screenprint of the database report in print preview is not enough for this trait.

As with trait 1, the results of the calculations do not have to be correct for achievement in this trait. Therefore, learners should be encouraged, to spend time making sure they have considered the presentation of their results.

It is disappointing to note that, once again a number of centres are advising learners not to complete this activity at all. Querying is a fundamental skill of databases, so the learners are missing out an entire skill set.

Of those who did complete, query A was quite well evidenced. As expected, the majority of learners applied a sort correctly. Many candidates added the correct criteria for at least one of the requirements. Where marks were not awarded for the criteria for the pack size/days to pay it was because candidates used the incorrect operators or values. For example ≤ 1000 , > 1000 , > 25 , ≤ 25 etc.

Query B was, as usual, the more challenging query and, as expected, fewer were able to fully complete it. Where the query had been attempted a lot of learners did find cups only. It was also nice to see the number of learners who had attempted the calculation to find the selling price. Of those who completed this query, many successfully calculated the selling price.

The report was quite well evidenced with many learners making sure there was a suitable title and readable labels etc. Many were able to calculate the total products, however, a good number of these filtered to only large pack sizes so this total was not useful. Fewer, demonstrated the skills needed to determine how many products, from all of the products supplied were large.

However, there are still a number of learners who did not ensure:

- all the field/label names, criteria etc. could be seen in both design and datasheet/print preview
- appropriate field/label names were present for the generated values in the queries/report
- attention was paid to the presentation of the results.

Part A Activity 4 – Structure testing

This task is designed to test the learners' ability to test the structure of their database by conducting **only** the tests given.

Learners **must** use the template provided in each examination and should only conduct the tests specified.

Marking Guidance	Page 11
Example Solution	Pages 11 to 14
Script A	Pages 14 to 18
Script B	Pages 11 to 15

The most important aspect to teach learners is that they should write the test plan for **an independent tester** – not themselves. This is still largely ignored in the evidence of many candidates. If they focus on reading what they have put before they add the screenprint of the results and ask themselves would the independent tester be able to complete this test and know if it was successful, then they should be well on the way to full marks. Before the actual results are added to the template, they need to ask themselves:

- would the independent tester know **exactly** what data to input in each of the data input fields – not just the field being tested?
- would the independent tester know **exactly** what is expected to happen – generated data, specific error messages after the data have been input?
- would the independent tester be able to **judge** whether the test has passed or failed from the data they were given as input and the expected results stated – e.g., would they know the error message that appears is the correct error message, would they know the generated data was correct etc.?

Test data should be present and relevant for **every single field in the table that requires input** regardless of which field is being tests and, where it is testing invalid data, the test data means the test will fail only on that field. The examiner needs to see the name of each data input field and the test data that will be used. There are still a high number of learners who do not include test data for each appropriate field, or only give a value that they will use for test data or simply say what the test is for. Data that will be generated should appear in the expected results along with any specific error messages etc.

The examiner should be able to see the test data used in the screenprint(s) given and the error message. The examiners match the test data from that screenprint back to the test data given. They also match the error message back to what is given in the expected results.

Testing required in the examination:

Test to be conducted	What is it testing?
1. a record for a new supplier will not save if the supplier email address is not in the correct format	Format check test
2. a record for a new supplier will not save if the supplier name is not present OR a record for a new supplier will not save if the supplier email address is not present	Presence check test
3. a record for a new rose will not save if the expert ID is invalid	Table lookup (foreign key) test
4. a record for a new product will not save if the product category ID is invalid	Table lookup (foreign key) test
5. a record will not save if days to pay is below the accepted range	Value lookup/range test
6. a record will not save if days to pay is above the accepted range	Value lookup/range test

There are still a number of learners who conduct more testing than required. It tends to be a centre wide issue when this occurs. The number of tests given reflect the time allocated to complete the activity. For example test 2 showing a test with valid data, then a test with invalid data is wasting time and only the invalid test would be considered for marks.

Test data column

It is expected that learners will provide the test data for the data input fields for a **full** record i.e., the name of each field and the data that will be used. Null, blank etc. can be used to signify fields where no data will be used. The value of the key field can be given here or (if it is an AutoNumber) given in the expected results as data that is generated. There was some excellent evidence seen. However, some learners:

- use this column to tell the examiner what the test is – we do not need to know that it is already in the exam paper
- only indicate a single item of test data e.g., blank. This is of no use to a tester

- only indicate the field that will be tested e.g., Supplier Surname. This is of no use to a tester
- put a screenprint in of the table showing the data. This is not acceptable.

Expected results column

This should be specific and, indeed, many learners ensured it was. Specific means a tester would know exactly what should happen

Examples

an error message will be displayed telling the user they must enter the supplier's name.

an error message will be displayed telling the user they must enter between 14 and 30 for the days to pay.

There are some learners who still do not appear to understand this e.g.,

- error
- an error message will be displayed
- the data will not be accepted

Actual results column

Many learners evidenced this well. However, some learners weaken their evidence because:

- the actual results do not use the test data they said they were going to use or there was no test data to compare to
- the screenprints cannot be read
- messages cover the test data so it cannot be seen

In terms of screenprints, learners can change the width of the columns in the template and can delete the final column if they have no errors to discuss. They can also place the screen prints underneath the table so long as they ensure they clearly label which test number the screenprint(s) belongs to.

Error column

Learners should only complete this column if they have found errors. Where it is clear the actual results are not what should be expected or where they could have been better, they should be identifying this. If they have not encountered any errors and would prefer to delete this column to increase the size of the screenprints for the actual results, then this is acceptable. Learners should always check their pdf document to ensure all tests can be seen.

Part A Activity 5 – Structure evaluation

This task is designed to test the learners' ability to evaluate the structure of their database.

Marking Guidance	Page 12
Script A	Pages 19 to 20
Script B	Page 16

The evaluation in Part A is distinctly different from the evaluation in Part B. Part A is designed for learners to showcase their knowledge and understanding about normalisation, minimising data duplication and how this can help ensure requirements are met. Part B is all about the interface and the usability of it from the user's point of view. It is clear to see some learners still do not understand this.

Some learners also still do not appear to understand that the evaluation is based upon 'minimising data duplication' as well as meeting requirements.

- Some paid lip service to minimising data duplication, some did not consider it all.
- Some regurgitated all they knew about normalisation without relating it to their solution.
- Others concentrated solely on meeting the given requirements.
- Others gave a running commentary of what they had done to complete all the activities in part A.
- Others took this as an opportunity to talk about how they were taught/how hard tasks were/how they had performed etc.

We expect a discussion of how **their** structure has minimised data duplication. The discussion should demonstrate **their** knowledge and understanding of the process of normalisation in terms of the **data extract** and the **given requirements** and **why their structure is suitable**. There is no requirement to think about the user in this evaluation. That is part B.

Part B Activity 6 – Interface and functionality

This task is designed to test the learners' ability create and automate two forms. The first requires validation and a customised, automated save process, the second may require calculations/criteria/filtering etc. and some form of an automated process.

Learners **must** use the template provided in each examination.

Marking Guidance	Pages 13 to 15
Example Solution	Pages 15 to 16
Script A	Pages 21 to 29
Script B	Pages 17 to 21

Trait 1 Assessment of this trait focusses on the presentation of the forms and how 'fit for purpose' they are in terms of what the learners have been told the forms will be used for and what they must do. Across the two forms examiners will be looking for:

- whether they match the given purpose
- sensible titles
- instructions telling the user how to use the forms
- asterisks where data entry is required
- field widths that are appropriate for data they will hold
- a good layout
- a consistent house style
- fields that have content that **should** be automatically generated are disabled
- relevant, consistent, easy to read labels (e.g., spaces)
- combo boxes (or equivalent) where relevant to make it easier for the user to input data

Whether the forms include automated routines or not is of no consequence in this trait.

Trait 2 Assessment of this trait focusses on the addition of any criteria/calculations required to meet requirements. What the form looks like and whether the automation of the form works is of no consequence in this trait.

- Trait 3** Assessment of this trait focusses on the validation and automated routines that should be present to meet requirements. Validation must be at form level and not applied to any of the tables – the structure of the tables must not be altered in any way. What the form looks like is of no consequence in this trait.
- Trait 4** Assessment of this trait can be determined by how well the learner has met the requirements of the other three traits as they all play their part in the functionality of the forms and how well they meet the requirements criteria. The band awarded for this trait was automatically generated.

Form1 – Add customer

The purpose of this form was to *add a new customer*.

This form was the simpler of the two and it was expected that this form could be created, customised, and automated by all learners with pass and above ability.

Trait 1

It was clear which learners had been prepared using past Lead Examiner reports and the sample solutions and scripts. These learners tended to achieve well in this trait. However, it is still very disappointing that after all of the resources and Lead Examiner reports, a large number of learners produce a **default** form. It is relatively easy for learners to achieve band 4 in this trait, which can really help boost marks awarded for those who find the calculations, criteria, and automation more difficult.

Common problems found:

- irrelevant titles e.g., the name of the table
- no consideration of the readability of the labels e.g., no spaces in labels that included more than one word
- little/no consideration of the data that would be input i.e., fields that were too wide/too deep. Very few candidates actually amend the field widths to be appropriate for the length of the data
- no consideration of user aids including disabled fields, asterisks, instruction on how to use
- no save button
- Customer ID missing from the form.

Trait 2

This form was the simpler of the two in terms of calculations/criteria. The only calculation required was to ensure the CustomerID would be incremented. The data type for CustomerID in tblCustomer was AutoNumber so this did not require learners to use an actual calculation only to ensure it was present on the form.

If the CustomerID appeared on a **bound** form and there was a save process, then this was enough evidence. If DMax was used on the CustomerID field on an **unbound** form, then this was enough evidence for incrementing the ID. However, it would not have been suitable to try to save this value in the automation process for trait 3 – the data type was AutoNumber. We did expect to see the CustomerID on the form as this was taken to mean learners had taken the fact that the CustomerID would need to be generated considered. Most learners achieved this.

Trait 3

The first form (customer form) was the form that required validation as part of/along with an automated save process. In this examination validation had to ensure:

- the customer's surname was present
- the customer's forename was present
- the sale limit was in the specified range
- a suitable error message would appear where invalid data had been used

Automation should have been present to:

- ensure the form was ready for data entry
- append valid data to the customer table, display a save message and clear the form ready for the next data entry.

Many learners evidenced this form very well - design view screenprint, form view screenprint, screenprints of any validation used, screenprints of the automation. However, a number did not.

Surname and forename

Validation applied to the validation rule properties of the field on the form is not acceptable evidence. The validation needs to appear in a macro or code for the presence check.

Sale limit

Most used a validation rule with an error message on the field properties on the form, others validated in their macro or code. So long as when the save button was pressed a valid value only would save then it was acceptable.

Ready for Data Entry

It is enough to see the form in form view with no data present as evidence for this and this is how many learners did evidence it. Where the screenprint included data, the examiners then looked for evidence elsewhere e.g. setting the Data Entry property of the form to Yes, using a macro or code to go to a new record as the form opened or evidence that the form was unbound.

Saving

It is expected that some parts of the save process can be achieved by all learners. The higher-level skill is making sure the record only saves if it should. There are still a number of learners who provide excellent evidence of the validation but then place the save command in the wrong place meaning it would be attempted regardless of whether there were errors or not. Others who used unbound forms often did not provide evidence of how the save would be conducted i.e. running the save command in a macro or code is not evidence of saving when the form is unbound. An append query (or equivalent) would be expected as evidence and seeing this query being called in the macro or code.

Form 2 – Salesperson review

The purpose of this form was to be able to review the performance of a sales person. Whilst there are many aspects of this form geared towards merit and distinction learners there are still achievable marks for those who find the technical aspects outside of their skill set. It should always be attempted. It does not have to be perfect to gain marks.

It was expected that most learners would be able to build the form, even if they could not manage to get it fully functional. It was expected that the higher ability learners would be able to produce some of the more challenging aspects and the highest ability to produce all the aspects.

Trait 1

In terms of trait 1 and how the form should look, the requirements given in the activity were clear:

- There must be a combo box to select the salesperson
- When the salesperson is selected this information must be automatically displayed in fields on the form:
 - the most recent year of sales, e.g. 2023
 - the sales target for the salesperson in that year
 - the total sales for the salesperson in that year
 - the bonus they should get
 - their next sales target

This should have led to the form including:

- a combo box to select the salesperson
- fields for the values that needed to be generated after a salesperson is selected:
 - the most recent year of sales, e.g. 2023
 - the sales target for the salesperson in that year
 - the total sales for the salesperson in that year
 - the bonus they should get
 - their next sales target.
- the usual – title, clear labels, asterisks, instructions etc.

Even if learners could not go on to complete any of the functionality they would still have been credited for 'fitness for purpose' and presentation. Clearly, this would have helped to boost marks.

It is still disappointing to see the number of learners who do not attempt to think about the fitness for purpose for this form – many of whom had clearly thought very carefully about it for the customer form.

As with the first form, common problems were:

- irrelevant titles
- no consideration of the readability of the labels e.g., no spaces in labels that included more than one word
- little/no consideration of the data that would be input i.e., fields that were too wide/too deep
- no consideration of user aids including disabled fields, asterisks, instruction on how to use, drop down boxes etc.

Trait 2

In terms of criteria and calculations it was expected that:

- a query (or equivalent) would be used to find/generate
- the most recent year
- the sales target for the salesperson in that year
- the total sales for the salesperson in that year
- an if statement to determine the bonus they should get.
- a formula to determine their next sales target.

It was expected that there would be something for everybody to attempt and achieve in this trait and it did prove to be good differentiator in terms of abilities. A respectable number of learners did manage to find the most recent year. Fewer were able to link the year to the information needed about the salesperson. More were able to generate the bonus and next sales target – even if they had not linked to the salesperson.

Overall, there was a wide range of evidence seen that covered some, majority, and all the requirements.

The common problems encountered included:

- not including the query/queries in design view or truncating the evidence
- truncating the formulae added to the fields in the form
- not linking the most recent year, current sales target and total sales to the salesperson selected, or not showing how they achieved it.

Trait 3

In terms of automation this is what was expected that:

- the values specified would be displayed when a salesperson was selected

Where learners had attempted the form and the generation of data (even if it did not work correctly), they were able to gain marks in this trait.

Part B Task 7 – Interface and functionality testing

This task is designed to test the learners' ability to test the interface and functionality of the database by conducting **only** the tests given.

Learners **must** use the template provided in each examination and should only conduct the tests specified.

Marking Guidance	Page 16
Example Solution	Pages 17 to 21
Script A	Pages 30 to 28
Script B	Pages 22 to 27

The general comments discussed in activity 4 also apply to this activity.

Testing required in the examination:

1. The customer input form is ready for data entry when the form opens
2. The surname must be present
3. The forename must be present
4. The sale limit cannot be above the top of the range
5. The sale limit cannot be below the bottom of the range
6. A record will save in the customer table if all the required data is present and valid
7. These details appear in fields on the salesperson review form when the salesperson is selected:
 - the most recent year of sales, e.g. 2023
 - the sales target for the salesperson in that year
 - the total sales for the salesperson in that year
the bonus they should get
 - their next sales target..

Again, it was nice to see most learners ensured they conducted **only** the given testing, though some are still wasting time including other tests.

The general comments given in activity 4 in terms of evidence also apply here.

Part B Task 8 – Interface and functionality evaluation

This task is designed to test the learners' ability to evaluate their interface and its functionality in terms of the quality, performance, and usability of the interface.

Marking Guidance	Page 17
Script A	Pages 39-40
Script B	Page 28

The evaluation in Part B is distinctly different from the evaluation in Part A. Part A is designed for learners to showcase their knowledge and understanding about normalisation, minimising data duplication and how this can help ensure requirements are met. Part B is all about the interface and the usability of it from the **user's point of view**. It is clear to see some learners do not understand this.

At times learners use the evaluation as an opportunity to describe what they have done with no thought or mention of the user at all. We want to know what they have done and how/this makes the solution easier for the user to use. How exactly does adding a validation rule to the sales limit help the user etc? It is also quite common to see learners ignore issues in terms of their solutions.

Summary

Based on their performance in this paper, learners should:

- ensure they have included a screenprint of their database relationships in activity 1
- ensure the structure in their activity 2 **exactly** matches the structure shown in their activity 1
- ensure screenprints can be clearly read – no truncation etc.
- ensure enough detail has been included to show the criteria/calculations and automation of the forms
- ensure there is test data present for each field in the table/form, ensure expected test results are specific, ensure the data used can be clearly in the actual test results
- ensure they understand the difference in the focus in terms of the evaluation in Part A and the evaluation in Part B

